Claims

[c1] What is claimed is:

1. An object-oriented controller in which abstraction is accomplished by the incusion of interfaces between the hardware, software and network elements , the controller comprising: a. Hardware with with a processing means using an operative system that runs an application, said application made of a plurity of micro-objects from a micro-object library, a memory means, an Input/Output means and a communication means; b. a Monitoring Graphics User Interface interfacing to a plurality of hardware through said hardware"s application; and c. a network adapter that receives from and sends data to a plurality of hardware through said hardware"s communication means. 2. The controller of claim 1 wherein the communication from the hardware to the network adapter consists of a send and receive function.

[c2] 3. The controller of claim 1 wherein the communication from the hardware to the network adapter consists of a send and receive function with a logical ID being assigned to each hardware and the send function using four parameters;

Service, whether an acknowledgement is needed;

Destination hardware;

Source hardware; and

Length, which is the length of the data packet to be communicated.

[c3] 4. The controller of claim 1 wherein the Monitoring Graphics User Interface is used to download the application to the hardware.

[c4] 5. The controller of claim 1 wherein the Monitoring Graphics User Interface is contained on a computing means.

[c5] 6. The controller of claim 1 wherein the Monitoring Graphics User Interface is contained on a computing means and interfaces to a plurlarity of hardware through the Network Adapter.

[c6] 7 The controller of claim 1 wherein the Network Adapter contains a mapping means to map a Destination address with the corresponding logic and hardware address.

[c7] 8. The controller of claim 1 wherein the micro-object library is created with a plurality of micro-objects each with each own methods and capabilities.

[c8] 9. The controller of claim 1 wherein when changing hardware, a new set of micro-objects for the new hardware will be used that will contain methods and data structure analogue to the old set of micro-objects used by the old hardware.

[c9] 10. A method for an object-oriented controller comprising the step of : a. Using a Hardware means with with a processing means using an operative system that runs an application, said application made of a plurity of micro-objects from a micro-object library, a memory means, an Input/Output means and a communication means; b. Using a Monitoring Graphics User Interface for interfacing to a plurality of hardware through said hardware"s application; and c. Using a network adapter that receives from and sends data to a plurality of hardware through said hardware"s communication means. 12. The method of claim 10 wherein the communication from the hardware to the network adapter consists of a send and receive function.

[c10] 13. The method of claim 10 wherein the communication from the hardware to the network adapter consists of a send and receive function with a logical ID being assigned to each hardware and the send function using four parameters;
Service, whether an acknowledgement is needed;
Destination hardware;
Source hardware; and
Length, which is the length of the data packet to be communicated.

[c11] 14. The method of claim 10 whichi includes using the Monitoring Graphics User Interface to download the application to the hardware

15. The method of claim 10 which includes containing the Monitoring Graphics User Interface on a computing means.

[c12] 16. The method of claim 10 includes containing the Monitoring Graphics User Interface on a computing means and interfacing to a plurlarity of hardware through the Network Adapter.

[c13] 17 The method of claim 10 which includes having the Network Adapter contain a mapping means to map a Destination address with the corresponding logic and hardware address.

[c14] 18. The method of claim 10 which includes creating the micro-object library with a plurality of micro-objects each with each own methods and capabilities.

[c15] 19. The method of claim 10 wherein when changing hardware, a new set of micro-objects for the new hardware will be used that will contain methods and data structure analogue to the old set of micro-objects used by the old hardware.